

Claims

1. A tool for milling materials on a slow speed milling device, said tool having a rigid cylindrical portion and a closely toleranced tubular abrasive cylindrical means for fitting over at least a portion of said cylindrical portion, and a solvent-free adhesive intermediate
5 said cylindrical portion and said abrasive cylindrical means, wherein said cylindrical portion has a run-out of less than 5 thousands of an inch, when rotated.
2. A tool as claimed in claim 1 adapted to contact a template for milling materials to a desired shape further including a body having means for contacting said template for milling said material.
- 10 3. A tool as claimed in claim 2 wherein said body includes an integral bearing for contacting said template.
4. A tool as claimed in claim 3 including two spaced integral bearings for removably securing said abrasive cylindrical means therebetween.
5. A tool as claimed in claim 4 wherein one bearing surface includes a hole for
15 receiving a fastener for fastening one bearing surface to said cylindrical portion .
6. A tool as claimed in claim 5 wherein said bearing surfaces include a cylindrical surface having a first diameter, and said abrasive cylindrical means includes an abrasive tube having a second outside diameter.
7. A tool as claimed in claim 6 wherein said second diameter is substantially the same
20 as said first diameter.

8. A tool as claimed in claim 6 wherein said second diameter is less than said first diameter.
9. A tool as claimed in claim 2 wherein said tubular abrasive cylindrical means has an outside diameter which is substantially the same as an outside diameter of said body.
- 5 10. A tool as claimed in claim 2 wherein said tubular abrasive cylindrical means has a diameter less than an outside diameter of said body.
11. A tool as claimed in claim 1 wherein said milling device has a rotational speed of less than 2000 rpm.
12. A tool as claimed in claim 1 wherein said milling device is a drill press.
- 10 13. A tool as claimed in claim 1 wherein said run-out of said rigid cylindrical portion is less than 3 thousands of an inch.
14. A tool as claimed in claim 1 wherein said run-out of said cylindrical portion is less than 1 thousands of an inch.
- 15 15. A tool as claimed in claim 2 wherein said body has a run-out of less than 5 thousands of an inch when rotated.
16. A tool as claimed in claim 2 wherein said body has a run-out of less than 3 thousands of an inch.
17. A tool as claimed in claim 2 wherein said body has a run-out of less than 1 thousands of an inch.